federal register

TUESDAY, MAY 17, 1977

PART III

FEDERAL ENERGY ADMINISTRATION

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ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT

Notice of Intention To Issue Construction Orders to Certain Major Fuel Burning Installations

FEDERAL ENERGY ADMINISTRATION

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Notice of Intention To Issue Construction Orders to Certain Major Fuel Burning Installations

The Federal Energy Administration (FEA) hereby gives notice of its intention to issue Construction Orders pursuant to section 2(c) of the Energy Supply and Environmental Coordination Act of 1974, as amended (ESECA), and Title 10, Code of Federal Regulations (10 CFR), Parts 303 and 307 to the following installations in the early planning process:

Docket No.	Owner	Installation	Number of units	Location
OCU-0540-2-1 OCU-0540-2-2	Anheuser-Busch, Inc.	Williamsburg Brewery	2	Williamsburg, Va.
OCU-0900-1-1	Supervisory committee of Bellefield boiler plant.	Bellefield boiler plant	1	Pittsburgh, Pa.
OCU-1050-1-1	Boeing Co.	Boeing Vertol	1	Ridley Township, Pa.

FEA hereby also gives notice of the opportunity for written and oral presentation of data, views and arguments by interested persons regarding these proposed Construction Orders.

The proposed orders would require the above-named installations in the early planning process to be designed and constructed to be capable of using coal as their primary energy source.

Prior to the issuance of a Construction Order to an installation, section 2(c) of ESECA and 10 CFR 303.46(b), 307.3(b), and 307.3(c) require that FEA find that the installation is in the early planning process. A Construction Order may not be issued if FEA finds that an adequate and reliable supply of coal and coal transportation facilities are not reasonably expected to be available. FEA's proposed findings, as well as its proposed conclusions and rationale with respect to these findings, for the installation are set out in Section I of the Appendix to this notice. These findings, conclusions and rationale may be amended as a result of comments received by FEA pursuant to this notice and other information available to FEA. The findings, conclusions and rationale will be included, with any amendments, in the Construction Order if it is issued.

In addition, section 2(c) of ESECA and 10 CFR 303.46(b) and 307.3(d) require that FEA consider certain other factors prior to issuance of a Construction Order. FEA's initial conclusions and a brief statement of the rationale for each, with respect to such considerations, are set out in Section II of the Appendix to this notice. The conclusions and rationale may be amended as a result of comments received by FEA pursuant to this notice and other information available to FEA. The conclusions and rationale will be included with any amendments, in the Construction Order if it is issued.

Upon completion of the proceeding described in this notice, FEA may determine to issue Construction Orders to some or all of the above-named installations. The Construction Orders will not become effective, however, until FEA has considered the environmental impact of each order, pursuant to 10 CFR 208.3(a)(4) and 307.7, and has served the affected installation with a Notice of Effectiveness, as provided in 10 CFR 303.10(b), 303.47(b) and 307.5. 10 CFR 307.7(c) required that, prior to the issuance of a Notice of Effectiveness to an installation, FEA shall perform an analysis of the environmental impact of the issuance of such notice of effectiveness. That analysis shall result in either 1) a declaration that the Construction Order will not, if made effective by a Notice of Effectiveness, be likely to have a significant impact on the quality of the human environment; or, 2) the preparation by FEA of an environmental impact statement covering the significant site-specific impacts that are likely to result from the Construction Order and that have not been adequately addressed in the Final Programmatic Environmental Impact Statement or in other official documents made publicly available. If FEA prepares an environmental impact statement covering significant site-specific impacts from the Construction Order, the statement shall be prepared and published for comment in accordance with section 102(2)(C) of the National Environmental Policy Act of 1969 prior to issuance of a notice of effectiveness. Interested persons may request a public hearing pursuant to 10 CFR 303.173 to comment on the contents of a draft environmental impact statement.

Public comment on the proposal to issue a Construction Order to the installation(s) listed above is invited in the form of written and oral presentation of data, views and arguments.

Comments should address (1) the adequacy and validity of each of the proposed findings and the conclusions and rationale in support of these findings, as well as the conclusions with respect to the other factors FEA must consider and rationale in support of these conclusions, (2) the environmental impact of the issuance of a notice making effective a Construction Order, including any site specific environmental impacts, and (3) any other aspects or impacts of the proposed Construction Order believed to be relevant.

Any installation issued a Construction Order will have to comply with applicable new source performance standards prescribed by the Environmental Protection Agency under the Clean Air Act, as amended (42 U.S.C. 1857, et seq.).

Pursuant to 10 CFR 303.173(a) and (d), FEA hereby announces that a public hearing to receive oral presentation of data, views and arguments from interested persons will be held beginning at 9:00 a.m. on June 1, 2 and 3, 1977, at the Federal Building, Conference Room 11B 1421 Cherry Street, Philadelphia, Pennsylvania 19102. Any person who has an interest in the subject of the hearing, or who is a representative of a group or class of persons which has an interest in the subject of the hearing, may make a written request or a verbal request if confirmed in writing, for an opportunity to make an oral presentation. That request should be directed to Ed Gray, FEA Region III, Room 1001, 1421 Cherry Street, Philadelphia, Pennsylvania 19102, (215) 597-3607. The request should be received before 4:30 p.m., Thursday, May 26, 1977. The request should describe the person's interest in the issue(s) involved; if appropriate, it should state why the person is an appropriate representative of the group or class of persons which has such an interest; it should give a concise summary of the proposed oral presentation and a phone number where the person may be contacted through May 31, 1977. Speakers should submit 10 copies of their oral presentation if possible, unless such presentation is less than five (5) pages, in which case only one copy is required, to Ed Gray, Federal Energy Administration, 1421 Cherry Street, Philadelphia, Pennsylvania 19102, before 4:30 p.m., Monday, May 31, 1977. Speakers will be contacted by an FEA Representative before 4:30 p.m., Friday, May 27, 1977, to confirm receipt of the written request.

Detailed technical data, views and arguments should be contained in a written submission in support of the oral presentation. The oral presentation itself should be a summary of those written comments.

While FEA will endeavor to provide adequate opportunity to all who desire to speak, FEA reserves the right to limit the number of persons to be heard at the hearing, to schedule their respective presentation and to establish the procedures governing the conduct of the hearing. The length of time allocated to each presentation may be limited on the basis of the number of persons requesting to be heard. The FEA will prepare an agenda that shall provide, to the extent possible, for the presentation of all relevant data, views and arguments.

An FEA official will be designated to preside at the hearing, which will not be a judicial or evidentiary hearing. During oral presentations, only those conducting the hearing may ask questions. There will be no cross-examination. At the conclusion of all initial oral presentations, each person who has made an oral statement will be given the opportunity, if she or he so desires, to make a rebuttal statement. The rebuttal statements will be given in the order in which the initial statements were made and will be subject to time limitations.

Any interested person may submit written questions to the presiding officer to be asked of any person making an oral presentation. The presiding officer will determine whether to ask the question, having first determined whether the question is relevant, and whether adequate time may be afforded for an answer.

Any further procedural rules needed for the proper conduct of the hearing will be announced by the presiding officer.

A transcript of the hearing will be made and it, together with any written comments submitted in the course of the hearing, will be retained by the FEA and make available for inspection and copying at the Freedom of Information Reading Room, Room 2107, Federal Building, 12th and Pennsylvania Avenue, NW., Washington D.C., and the FEA Regional Office, Room 1001, 1421 Cherry Street, Philadelphia, Pennsylvania 19102, between the hours of 8 a.m and 4:30 p.m., Monday through Friday. Anyone may purchase a copy of the transcript from the reporter.

Interested persons are invited to submit written comments consisting of data, views, or arguments with respect to the proposed Construction Orders to Executive Communications, Federal Energy Administration, Federal Building, Room 3317, Box MK, Washington, D.C. 20461.

Comments and other documents submitted to FEA Executive Communications should be identified on the outside of the envelope in which they are transmitted and on the document itself with the designation "Proposed Construction Order for the _____ Installation." Fifteen copies should be submitted.

All written comments received by 4:30 p.m., Tuesday, June 14, 1977, all oral presentations, and all other relevant information submitted to or otherwise available to FEA will be considered by FEA prior to issuance of a Construction Order.

Any information or data considered by the person furnishing it to be confidential must be so identified and submitted in writing, one copy only. The FEA reserves the right to determine the confidential status of the information or data and to treat it in accordance with that determination.

Copies of the regulations implementing Section 2 of ESECA (10 CFR Parts 303 and 307) are available from the FEA Regional Offices:

FEDERAL ENERGY ADMINISTRATION, REGIONAL OFFICES

Region, Address, and Phone

I. Robert Mitchell, Regional Administrator, 150 Causeway Street, Room 700, Boston, Massachusetts 02113—617-223-3701.
II. Alfred Kleinfeld, Regional Administrator, 26 Federal Plaza, Room 3206, New York, New York 10007—212-264-1021.
III. J. A. LaSala, Regional Administrator, 1421 Cherry Street, Rm. 1001, Philadelphia, Pennsylvania 19102—215-597-3390.
IV. Donald Allen, Regional Administrator, 1655 Peachtree Street, N.E., 8th Floor, Atlanta, Georgia 30309—404-526-2837.
V. N. Allen Andersen, Regional Administrator, Federal Office Building, Room A-333, 175 West Jackson Blvd., Chicago, Illinois 60604—312-353-0540.
VI. Delbert Fowler, Regional Administrator, P.O. Box 35228, 2626 West Mockingbird Lane, Dallas, Texas 75235—214-749-7345.
VII. Neil Adams, Regional Administrator, 1150 Grand Avenue, Kansas City, Missouri 64106—816-374-2061.
VIII. Dudley Faver, Regional Administrator, P.O. Box 26247, Belmar Branch, 1075 South Yukon Street, Lakewood, Colorado 80226—303-234-2420.
IX. William Arntz, Regional Administrator, 111 Pine Street, San Francisco, California 94111—415-556-7216.
X. Jack B. Robertson, Regional Administrator, 1992 Federal Building, 915 Second Avenue, Seattle, Washington 98174—206-442-7280.

MFBI CONSTRUCTION ORDER CANDIDATE IDENTIFICATION AND SELECTION METHODOLOGY

FEA has conducted a two part process in which it first identified the potential universe of major fuel burning installations (MFBI's) that were in the early planning process in order to determine which MFBI's might be subject to Construction Orders requiring that the MFBI be designed and constructed to be capable of using coal as its primary energy source. FEA then performed a detailed analysis of individual potential order recipients to determine whether the facts would warrant publication of a Notice of Intention (NOI) to Issue a Construction Order to any of the potential order recipients.

I. *Determination of candidate universe.*

On February 3, 1977, FEA published in the FEDERAL REGISTER (42 FR 6621) a notice requiring owners of MFBI's in the early planning process to complete Schedules A-1 and A-2 of Form FEA C-607-S-0, entitled "Major Fuel Burning Installation Early Planning Process Identification Report." (An MFBI has entered the early planning process by completing its preliminary feasibility study.) Respondents were required to complete these schedules if the MFBI's were planned with at least the minimum required design firing rate (generally 100 MM BTU per hour).

Schedule A-1 contained basic identifying data for a particular MFBI. Schedule A-2 is designed to provide FEA with information on combustor capacity, combustor use, the primary energy source, and the design and construction schedule, including the processing status of any required government permits.

After receiving the information on Schedules A-1 and A-2, FEA first determined which MFBI's were no longer in the early planning process according to § 307.2 of the FEA regulations, which states that the early planning process terminates when the MFBI "can no longer be ordered, to be designed and constructed so as to be capable of burning coal as its primary energy source without suffering significant financial or operational detriment due to the impairment of prior commitments."

In addition, FEA deferred from further consideration certain other MFBI's based on the information contained in Schedules A-1 and A-2. To date, consideration of the following types of MFBI's has been deferred:

(a) Those planning to use exclusively non-fossil fuels as their primary energy source, usually wood waste, bagasse or electricity;

(b) Those planned so as to be capable of using only coal as their primary energy source;

(c) Those planning to construct units that will be used exclusively for process uses that require utilization of natural gas or petroleum products (process use is defined in § 303.2 of the FEA regulations (10 CFR 303.2) as that fuel use for which alternate fuels are not technically feasible);

(d) Those planning exclusively to use waste gas that would not be added to the nationwide pipeline supply, or petroleum by-products that are not suitable for general commercial uses (typically these fuels are waste gases or petroleum by-products generated by refinery processes and are used in refinery steam generators).

Issuing orders to the first category of MFBI's, above, would not contribute to the saving of any oil or natural gas. Burning of non-fossil fuels, furthermore, contributes to the purpose of ESECA to aid in meeting the essential needs of the United States for fuels in the same manner as does the increased burning of coal.

In addition, FEA has exercised its administrative discretion to defer consideration of MFBI's currently planning to burn coal as their only energy source because of programmatic necessity to establish reasonable priorities. Should either units planning to use a non-fossil fuel, or units planning to burn only coal change their current plans they are to amend their response to Form FEA C-607-S-0.

FEA has applied its administrative discretion and technical expertise to determine that certain types of facilities should be covered by the "process use" exemption referred to in subparagraph (c) above. Certain of these processes reflect uses for which the burning of coal is not technically feasible. The following types of facilities have been included to date in the "process use" exemption:

(1) refinery heaters and furnaces;
(2) copper refining and melting furnaces;
(3) chemical plant process heaters and recovery furnaces;
(4) oxygen blown steelmaking vessels;
(5) primary float glass tanks; and
(6) direct fired kilns and dryer burners (producing low alkaline products).

FEA has also determined that deferring issuance of NOI's to those MFBI's that use waste gas or petroleum by-products not suitable for other commercial uses would best serve the purposes of ESECA. The uses to which these waste fuels are currently put represent efficient use of national resources. Prohibiting the use of these waste fuels would not significantly conserve national supplies of scarce fuels.

MFBI's deferred on the basis of the above criteria are notified by letter that they will not be required to submit further information at this time. All

other MFBI's in the early planning process are required by FEA to complete Schedule A–3 of Form FEA C–607–S–0. Schedule A–3 is designed to elicit detailed financial information about the MFBI owner's estimate of capital costs that would be associated with the construction of a coal capable unit. Comparative fuel costs and the net operating cost differential resulting from burning coal are also elicited by Schedule A–3. The owner's financial history and information on coal availability are also obtained.

After receipt of the information contained in Schedule A–3, FEA analyzes the capability of the owner of the MFBI to recover any increase in projected capital investment costs required as a result of a Construction Order. An owner of an MFBI is capable of recovering any increase in projected capital investment that might be required as a result of a Construction Order if the MFBI is able to make the original investment planned (prior to issuance of a Construction Order) plus any increase required as a result of a Construction Order and continue in business in at least a financially breakeven posture over the long run. FEA presumes that an MFBI owner's capability to recover capital is confirmed when that owner can both raise the necessary capital for construction of an MFBI with coal burning capability and can show an historical profit profile. Factors used in analyzing that presumption include the size of the additional capital investment necessary to comply with a Construction Order, net property and plant assets, historical construction expenditures and total equity of the owner. FEA also considers any loss of revenue resulting from a delay caused by a Construction Order. Such losses, if any, are considered in terms of increased or additional costs which an MFBI incurs for goods or services, including power, which must be purchased by the MFBI to replace those goods or services which the MFBI would have produced for itself but for the issuance of a Construction Order. Such costs will be limited to the difference between the anticipated cost of production of the goods or services at the MFBI, and the cost of purchasing replacement goods or services.

In addition, section 2(c) of ESECA indicates that FEA may not issue Construction Order NOI's to an MFBI if it determines that an adequate and reliable supply of coal is not expected to be available. To meet this statutory requirement, FEA considers the availability nationwide of total tonnages of coal, based upon the presumption that an MFBI in the early planning process can be designed and constructed to use a wide range of coal types available.

FEA also considers, prior to issuance of an MFBI Construction Order NOI, the existence and effects of any contractual commitment for the construction of the MFBI upon the owner's capability to recover any increase in capital investment required as a result of a Construction Order.

It is to be noted that much of the information used by FEA to make its practicability findings is arguably confidential under 18 U.S.C. 1905. Therefore, such information has not appeared in the Appendix to the NOI. The calculations have been explained in each case and the data are available to the representatives of the owner of the MFBI.

Any questions regarding this Notice should be directed to the FEA National Office as follows: Federal Energy Administration, Code OCU (Construction Order: _____ Installation), Washington, D.C. 20461, 202–566–7941.

(Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 791 et seq.), as amended by Pub. L. 94–163; Federal Energy Administration Act of 1974 (15 U.S.C. 761 et seq.), as amended by Pub. L. 94–385; E.O. 11790 (39 FR 23185).)

Issued in Washington, D.C., May 9, 1977.

ERIC J. FYGI,
Acting General Counsel,
Federal Energy Administration.

APPENDIX

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU–0540–2–1 OCU–0540–2–2	Anheuser-Busch, Inc.	Williamsburg brewery	28–310–5 28–310–4	Williamsburg, Va.

These findings, determinations and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Anheuser-Busch, Incorporated shall be referred to as the "owner". Williamsburg Brewery Units 28–310–5 and 28–310–4 shall be referred to as the "MFBI's".

I. *Proposed findings.*—A. *The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserve approximately 200 billion tons contain 1 percent or less sulfur by weight. To determine when certain quanities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99% of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National Coal production.* It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977, (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.* The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA, is as follows (FEA 1976 National Energy Outlook):

Year:	Demand (million tons)
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.* The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibition Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	Demand (million tons)
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of Section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey," the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report," cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

(e) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*—A. *The existence and effects of any contractual commitment for the construction of the MFBI's.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI's which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–0 Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI's be designed and constructed to be capable of using coal as their primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.* FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.* This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book, (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment we performed, FEA related the additional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II. A., above, to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years.

In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

APPENDIX

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU-0000-1-1	Supervisory committee of Bellefield boiler plant.	Bellefield boiler plant....	Replacement 3.	Pittsburgh, Pa.

These findings, determinations and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Supervisory Committee of Bellefield Boiler Plant shall be referred to as the "owner". Bellefield Boiler Plant Replacement 3 shall be referred to as the "MFBI".

I. *Proposed findings.*

A. *The MFBI is in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI is in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for this MFBI has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI meets the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) [hereafter "BOM Survey"]). Within these recoverable reserves approximately 200 billion tons contain 1 percent or less sulfur by weight. To determine when certain quantities of these reserves are expected to be

available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99 percent of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.* It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977 (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.* The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA is as follows (FEA 1976 National Energy Outlook):

Year:	*Demand (million tons)*
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.* The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibition Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	*Demand (million tons)*
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from this MFBI and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once this MFBI and others become operational.

FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for this MFBI once it becomes operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for this MFBI will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975).

(e) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.* A. *The existence and effects of any contractual commitment for the construction of the MFBI.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–0 Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI be designed and constructed to be capable of using coal as its primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* In the response to Form FEA C–607–S–0, the owner indicated that the MFBI would be designed and constructed to be capable of using coal as its primary energy source. FEA concludes, therefore, that the FEA requirement that the MFBI be designed and constructed to be capable of burning coal as its primary energy source will not require any increase in projected capital investment, nor result in a delay in the commencement of operations of the MFBI. FEA further concludes that since no increase in projected capital investment is required, and no delay in the commencement of operations will result, FEA is not required to consider the capability of the owner to recover any increase in projected capital investment.

APPENDIX

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU–1050–1–1	Boeing Co.	Boeing Vertol	Unassigned	Ridley Township, Pa.

These findings, determinations and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Boeing Company shall be referred to as the "owner". Boeing Vertol Unassigned Unit shall be referred as to the "MFBI".

I. *Proposed findings.*—A. *The MFBI is in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to

find that the MFBI is in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for this MFBI has not terminated.

3. Schedule A–2 of From FEA C–607–S–0 submitted by the owner shows that the MFBI meets the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserves approximately 200 billion tons contain 1% or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99% of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.* It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977, (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.* The estimated national demand, excluding any increased demand resulting from FEA action under the authority of section 2(a) of ESECA, is as follows (FEA 1976 National Energy Outlook):

Year:	*Demand (million tons)*
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
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(3) *National ESECA prohibition order demand.* The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibition Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	*Demand (million tons)*
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from this MFBI and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once this MFBI and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for this MFBI once it becomes operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for this MFBI will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

(e) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*—A. *The existence and effects of any contractual commitment for the construction of the MFBI.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–0 Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI be designed and constructed to be capable of using coal as its primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.* FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI to be capable of burning coal as its primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.* This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the additional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II.A., above, to the owner's net property and plant assets,

the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI after construction of 40 years.

In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

[FR Doc.77-13700 Filed 5-16-77;8:45 am]

ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT

Notice of Intention To Issue Construction Orders to Certain Major Fuel Burning Installations

The Federal Energy Administration (FEA) hereby gives notice of its intention to issue Construction Orders pursuant to section 2(c) of the Energy Supply and Environmental Coordination Act of 1974, as amended (ESECA), and Title 10, Code of Federal Regulations (10 CFR), Parts 303 and 307 to the following installations in the early planning process:

Docket No.	Owner	Installation	Number of units	Location
OCU-6650-3-1	Shell Oil Co.	Petrolia plant	2	Fellows, Calif.
OCU-6650-3-2				
OCU-6650-1-1	do.	Pricewell plant	2	Bakersfield, Calif.
OCU-6650-1-2				
OCU-6650-2-1	do.	Mareo plant	2	Do.
OCU-6650-2-2				
OCU-8830-2-1	Standard Oil Co. of California/ Chevron, U.S.A., Inc.	NCD Cymric area, sec. 97.	2	Oildale, Calif.
OCU-8830-2-2				
OCU-8830-1-1	do.	NCD Bakersfield area, sec. 27, Kern front.	2	Bakersfield, Calif.
OCU-8830-1-2				

FEA hereby also gives notice of the opportunity for written and oral presentation of data, views and arguments by interested persons regarding these proposed Construction Orders.

The proposed orders would require the above-named installations in the early planning process to be designed and constructed to be capable of using coal as their primary energy source.

Prior to the issuance of a Construction Order to an installation, section (c) of ESECA and 10 CFR 303.46(b), 307.3(b), and 307.3(c) require that FEA find that the installation is in the early planning process. A Construction Order may not be issued if FEA finds that an adequate and reliable supply of coal and coal transportation facilities are not reasonably expected to be available. FEA's proposed findings, as well as its proposed conclusions and rationale with respect to these findings, for the installation are set out in Section I of the Appendix to this notice. These findings, conclusions and rationale may be amended as a result of comments received by FEA pursuant to this notice and other information available to FEA. The findings, conclusions and rationale will be included, with any amendments, in the Construction Order if it is issued.

In addition, section 2(c) of ESECA and 10 CFR 303.46(b) and 307.3(d) require that FEA consider certain other factors prior to issuance of a Construction Order. FEA's initial conclusions and a brief statement of the rationale for each, with respect to such considerations, are set out in Section II of the Appendix to this notice. The conclusions and rationale may be amended as a result of comments received by FEA pursuant to this notice and other information available to FEA. The conclusions and rationale will be included, with any amendments, in the Construction Order if it is issued.

Upon completion of the proceeding described in this notice, FEA may determine to issue Construction Orders to some or all of the above-named installations. The Construction Orders will not become effective, however, until FEA has considered the environmental impact of each order, pursuant to 10 CFR 208.3(a)(4) and 307.7, and has served the affected installation with a Notice of Effectiveness, as provided in 10 CFR 303.10(b), 303.47(b), and 307.5. 10 CFR 307.7(c) requires that, prior to the issuance of a Notice of Effectiveness to an installation, FEA shall perform an analysis of the environmental impact of the issuance of such Notice of Effectiveness. That analysis shall result in either 1) a declaration that the Construction Order will not, if made effective by a Notice of Effectiveness, be likely to have a significant impact on the quality of the human environment; or, 2) the preparation by FEA of an environmental impact statement covering the significant site-specific impacts that are likely to result from the Construction Order and that have not been adequately addressed in the Final Programmatic Environmental Impact Statement or in other official documents made publicly available. If FEA prepares an environmental impact statement covering significant site-specific impacts from the Construction Order, the statement shall be prepared and published for comment in accordance with section 102(2)(C) of the National Environmental Policy Act of 1969 prior to issuance of a Notice of Effectiveness. Interested persons may request a public hearing pursuant to 10 CFR 303.173 to comment on the contents of a draft environmental impact statement.

Public comment on the proposal to issue a Construction Order to the installations listed above is invited in the form of written and oral presentation of data, views and arguments.

Comments should address: (1) The adequacy and validity of each of the proposed findings and the conclusions and rationale in support of these findings, as well as the conclusions with respect to the other factors FEA must consider and rationale in support of these conclusions, (2) the environmental impact of the issuance of a notice making effective a Construction Order, including any site-specific environmental impacts, and (3) any other aspects or impacts of the proposed Construction Order believed to be relevant.

Any installation issued a Construction Order will have to comply with applicable new source performance standards prescribed by the Environmental Protection Agency under the Clean Air Act, as amended (42 U.S.C. 1857 et seq.).

Pursuant to 10 CFR 303.173 (a) and (d), FEA hereby announces that a public hearing to receive oral presentation of data, views and arguments from interested persons will be held beginning at 9:00 a.m. on May 27, 1977, at the Holiday Inn, 1500 Van Ness, San Francisco, California 94109. Any person who has an interest in the subject of the hearing, or who is a representative of a group or class of persons which has an interest in the subject of the hearing, may make a written request or a verbal request if confirmed in writing, for an opportunity to make an oral presentation. That request should be directed to Eugene Stanley, FEA Region IX, 111 Pine Street, San Francisco, California 94109. The request should be received before 4:30 p.m., Friday, May 20, 1977. The request should describe the person's interest in the issue(s) involved; if appropriate, it should state why the person is an appropriate representative of the group or class of persons which has such an interest; it should give a concise summary of the proposed oral presentation and a phone number where the person may be contacted through May 26, 1977. Speakers should submit 10 copies of their oral presentation if possible, unless such presentation is less than five (5) pages, in which case only one copy is required, to William Arntz, Regional Administrator, Federal Energy Administration, 111 Pine Street, San Francisco, California 94111, before 4:30 p.m., Thursday, May 26, 1977. Speakers will be contacted by an FEA Representative before 4:30 p.m., Tuesday, May 24, 1977, to confirm receipt of the written request.

Detailed technical data, views and arguments should be contained in a written submission in support of the oral presentation. The oral presentation itself should be a summary of those written comments.

While FEA will endeavor to provide adequate opportunity to all who desire to speak, FEA reserves the right to limit the number of persons to be heard at the hearing, to schedule their respective presentation and to establish the procedures governing the conduct of the hearing. The length of time allocated to each presentation may be limited on the basis of the number of persons requesting to be heard. The FEA will prepare an

agenda that shall provide, to the extent possible, for the presentation of all relevant data, views, and arguments.

An FEA official will be designated to preside at the hearing, which will not be a judicial or evidentary hearing. During oral presentations, only those conducting the hearing may ask questions. There will be no cross-examination. At the conclusion of all initial oral presentations, each person who has made an oral statement will be given the opportunity, if she or he so desires, to make a rebuttal statement. The rebuttal statements will be given in the order in which the initial statements were made and will be subject to time limitations.

Any interested person may submit written questions to the presiding officer to be asked of any person making an oral presentation. The presiding officer will determine whether to ask the question, having first determined whether the question is relevant, and whether adequate time may be afforded for an answer.

Any further procedural rules needed for the proper conduct of the hearing will be announced by the presiding officer.

A transcript of the hearing will be made and it, together with any written comments submitted in the course of the hearing, will be retained by the FEA and made available for inspection and copying at the Freedom of Information Reading Room, Room 2107, Federal Building, 12th and Pennsylvania Avenue NW., Washington, D.C., and the FEA Regional Office, 111 Pine Street, San Francisco, California 94111, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. Anyone may purchase a copy of the transcript from the reporter.

Interested persons are invited to submit written comments consisting of data, views, or arguments with respect to the proposed Construction Orders to Executive Communications, Federal Energy Administration, Federal Building, Room 3317, Box MK, Washington, D.C. 20461.

Comments and other documents submitted to FEA Executive Communications should be identified on the outside of the envelope in which they are transmitted and on the document itself with the designation "Proposed Construction Order for the _____ Installation." Fifteen copies should be submitted.

All written comments received by 4:30 p.m., Tuesday, June 14, 1977, all oral presentations, and all other relevant information submitted to or otherwise available to FEA will be considered by FEA prior to issuance of a Construction Order.

Any information or data considered by the person furnishing it to be confidential must be so identified and submitted in writing, one copy only. The FEA reserves the right to determine the confidential status of the information or data and to treat it in accordance with that determination.

Copies of the regulations implementing Section 2 of ESECA (10 CFR Parts 303 and 307) are available from the FEA Regional Offices:

FEDERAL ENERGY ADMINISTRATION, REGIONAL OFFICES

Region, address, and phone

I. Robert Mitchell, Regional Administrator, 150 Causeway St., room 700, Boston, Mass. 02113—617–223–3701.

II. Alfred Kleinfeld, Regional Administrator, 26 Federal Plaza, room 3206, New York, N.Y. 10007—212–264–1021.

III. J. A. LaSala, Regional Administrator, 1421 Cherry St., room 1001, Philadelphia, Pa. 19102—215–597–3390.

IV. Donald Allen, Regional Administrator, 1655 Peachtree St., NE., 8th floor, Atlanta, Ga. 30309—404–526–2837.

V. N. Allen Andersen, Regional Administrator, Federal Office Bldg., room A–333, 175 West Jackson Blvd., Chicago, Ill. 60604—312–353–0540.

VI. Delbert Fowler, Regional Administrator, P.O. Box 35228, 2626 West Mockingbird Lane, Dallas, Tex. 75235—214–749–7345.

VII. Neil Adams, Regional Administrator, 1150 Grand Ave., Kansas City, Mo. 64106—816–374–2061.

VIII. Dudley Faver, Regional Administrator, P.O. Box 26247, Belmar Branch, 1075 South Yukon St., Lakewood, Colo. 80226—303–234–2420.

IX. William Arntz, Regional Administrator, 111 Pine St., San Francisco, Calif. 94111—415–556–7216.

X. Jack B. Robertson, Regional Administrator, 1992 Federal Bldg., 915 2d Ave., Seattle, Wash. 98174—206–442–7280.

MFBI CONSTRUCTION ORDER CANDIDATE IDENTIFICATION AND SELECTION METHODOLOGY

FEA has conducted a two part process in which it first identified the potential universe of major fuel burning installations (MFBI's) that were in the early planning process in order to determine which MFBI's might be subject to Construction Orders requiring that the MFBI be designed and constructed to be capable of using coal as its primary energy source. FEA then performed a detailed analysis of individual potential order recipients to determine whether the facts would warrant publication of a Notice of Intention (NOI) to Issue a Construction Order to any of the potential order recipients.

I. *Determination of candidate universe.*—On February 3, 1977, FEA published in the FEDERAL REGISTER (42 FR 6621) a notice requiring owners of MFBI's in the early planning process to complete Schedules A–1 and A–2 of Form FEA C–607–S–0, entitled "Major Fuel Burning Installation Early Planning Process Identification Report." (An MFBI has entered the early planning process by completing its preliminary feasibility study.) Respondents were required to complete these schedules if the MFBI's were planned with at least the minimum required design firing rate (generally 100 MM Btu per hour).

Schedule A–1 contained basic identifying data for a particular MFBI. Schedule A–2 is designed to provide FEA with information on combustor capacity, combustor use, the primary energy source, and the design and construction schedule, including the processing status of any required government permits.

After receiving the information on Schedules A–1 and A–2, FEA first determined which MFBI's were no longer in the early planning process according to § 307.2 of the FEA regulations, which states that the early planning process terminates when the MFBI "can no longer be ordered, to be designed and constructed so as to be capable of burning coal as its primary energy source without suffering significant financial or operational detriment due to the impairment of prior commitments."

In addition, FEA deferred from further consideration certain other MFBI's based on the information contained in Schedules A–1 and A–2. To date, consideration of the following types of MFBI's has been deferred:

(a) Those planning to use exclusively non-fossil fuels as their primary energy source, usually wood waste, bagasse or electricity;

(b) Those planned so as to be capable of using only coal as their primary energy source;

(c) Those planning to construct units that will be used exclusively for process uses that require utilization of natural gas or petroleum products (process use is defined in § 303.2 of the FEA regulations (10 CFR § 303.2) as that fuel use for which alternate fuels are not technically feasible);

(d) Those planning exclusively to use waste gas that would not be added to the nationwide pipeline supply, or petroleum by-products that are not suitable for general commercial uses (typically these fuels are waste gases or petroleum by-products generated by refinery processes and are used in refinery steam generators).

Issuing orders to the first category of MFBI's, above, would not contribute to the saving of any oil or natural gas. Burning on non-fossil fuels, furthermore, contributes to the purpose of ESECA to aid in meeting the essential needs of the United States for fuels in the same manner as does the increased burning of coal.

In addition, FEA has exercised its administrative discretion to defer consideration of MFBI's currently planning to burn coal as their only energy source because of programmatic necessity to establish reasonable priorities. Should either units planning to use a non-fossil fuel, or units planning to burn only coal change their current plans they are to amend their response to Form FEA C–607–S–0.

FEA has applied its administrative discretion and technical expertise to determine that certain types of facilities should be covered by the "process use" exemption referred to in subparagraph (c) above. Certain of these processes reflect uses for which the burning of coal is not technically feasible. The following types of facilities have been included to date in the "process use" exemption:

(1) Refinery heaters and furnaces;

(2) Copper refining and melting furnaces;

(3) Chemical plant process heaters and recovery furnaces;

(4) Oxygen blown steelmaking vessels;

(5) Primary float glass tanks;

(6) Direct fired kilns and dryer burners (producing low alkaline products).

FEA has also determined that deferring issuance of NOI's to those

MFBI's that use waste gas or petroleum by-products not suitable for other commercial uses would best serve the purposes of ESECA. The uses to which these waste fuels are currently put represent efficient use of national resources. Prohibhiting the use of these waste fuels would not significantly conserve national supplies of scarce fuels.

MFBI's deferred on the basis of the above criteria are notified by letter that they will not be required to submit further information at this time. All other MFBI's in the early planning process are required by FEA to complete Schedule A–3 of Form FEA C–607–S–O. Schedule A–3 is designed to elicit detailed financial information about the MFBI owner's estimate of capital costs that would be associated with the construction of a coal capable unit. Comparative fuel costs and the net operating cost differential resulting from burning coal are also elicited by Schedule A–3. The owner's financial history and information on coal availability are also obtained.

After receipt of the information contained in Schedule A–3, FEA analyzes the capability of the owner of the MFBI to recover any increase in projected capital investment costs required as a result of a Construction Order. An owner of an MFBI is capable of recovering any increase in projected capital investment that might be required as a result of a Construction Order if the MFBI is able to make the original investment planned (prior to issuance of a Construction Order) plus any increase required as a result of a Construction Order and continue in business in at least a financially breakeven posture over the long run. FEA presumes that an MFBI owner's capability to recover capital is confirmed when that owner can both raise the necessary capital for construction of an MFBI with coal burning capability and can show a historical profit profile. Factors used in analyzing that presumption include the size of the additional capital investment necessary to comply with a Construction Order, net property and plant assets, historical construction expenditures and total equity of the owner. FEA also considers any loss of revenue resulting from a delay caused by a Construction Order. Such losses, if any, are considered in terms of increased or additional costs which an MFBI incurs for goods or services, including power, which must be purchased by the MFBI to replace those goods or services which the MFBI would have produced for itself but for the issuance of a Construction Order. Such costs will be limited to the difference between the anticipated cost of production of the goods or services at the MFBI, and the cost of purchasing replacement goods or services.

In addition, section 2(c) of ESECA indicates that FEA may not issue Construction Order NOI's to an MFBI if it determines that an adequate and reliable supply of coal is not expected to be available. To meet this statutory requirement, FEA considers the availability nationwide of total tonnages of coal, based upon the presumption that an MFBI in the early planning process can be designed and constructed to use a wide range of coal types available.

FEA also considers, prior to issuance of an MFBI Construction Order NOI, the existence and effects of any contractual commitment for the construction of the MFBI upon the owner's capability to recover any increase in capital investment required as a result of a Construction Order.

It is to be noted that much of the information used by FEA to make its practicability findings is arguably confidential under 18 U.S.C. 1905. Therefore, such information has not appeared in the Appendix to the NOI. The calculations have been explained in each case and the data are available to the representatives of the owner of the MFBI.

Any questions regarding this Notice should be directed to the FEA National Office as follows: Federal Energy Administration, Code OCU (Construction Order: ---------- Installation), Washington, D.C. 20461.

(Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 791 et seq.), as amended by Pub. L. 94–163; Federal Energy Administration Act of 1974 (15 U.S.C. 761 et seq.), as amended by Pub. L. 94–385; E.O. 11790 (39 FR 23185).)

Issued in Washington, D.C., May 9, 1977.

ERIC J. FYGI,
Acting General Counsel,
Federal Energy Administration.

APPENDIX

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU–6650–3–1	Shell Oil Co.	Petrolia plant	E. & P. 4	Fellows, Calif.
OCU–6650–3–2			E. & P. 5	

These findings, determinations and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Shell Oil Company shall be referred to as the "owner". Petrolia Plant E & P 4 and E & P 5 shall be referred to as the "MFBI's".

I. *Proposed findings.*—A. *The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserves approximately 200 billion tons contain 1 percent or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99 percent of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.*—It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accu-

rate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977, (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	Production (million tons)
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.*—The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA, is as follows FEA 1976 National Energy Outlook):

Year:	Demand (million tons)
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.*—The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibition Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	Demand (million tons)
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.*—FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.*—Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of Section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBIs' location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

(e) *Coal transportation.*—FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*—A. *The existence and effects of any contractual commitment for the construction of the MFBI's.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI's which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–O Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI's be designed and constructed to be capable of using coal as their primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.*—FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.*—This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the additional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II.A., above, to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years.

In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

Appendix

Proposed findings and rationale for notice of intention to issue a construction order

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU–6650–1–1 OCU–6650–1–2	Shell Oil Co.	Pricewell plant	E. & P. 4 E. & P. 5	Bakersfield, Calif.

These findings, determinations, and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Shell Oil Company shall be referred to as the "owner." Pricewell Plant E & P 4 and E & P 5 shall be referred to as the "MFBI's."

I. *Proposed findings.*—A. *The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserves approximately 200 billion tons contain 1 percent or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99% of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.*—It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.8
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977, (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.*—The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA, is as follows (FEA 1976 National Energy Outlook):

Year:	*Demand (million tons)*
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.*—The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibition Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	*Demand (million tons)*
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

(e) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*—A. *The existence and effects of any contractual commitments for the construction of the MFBI's.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI's which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–0 Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI's be designed and constructed to be capable of using coal as their primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.*—FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.*—This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the addi-

tional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II.A., above, to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years. In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

APPENDIX

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU-6650-2-1 OCU-6650-2-2	Shell Oil Co.	Marco plant	E. & P. 3 E. & P. 4	Bakersfield, Calif.

These findings, determinations, and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Shell Oil Company shall be referred to as the "owner". The Marco Plant E & P 3 and E & P 4 shall be referred to as the "MFBI's".

I. *Proposed findings.—A. The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–O submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*— (a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserves approximately 200 billion tons contain 1% or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99% of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.*—It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study, Coal Availability Report, April 1977, (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.*—The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA, is as follows (FEA 1976 National Energy Outlook):

Year:	*Demand (million tons)*
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.*—The estimated potential demand for coal resulting from all Notices of Intention to issue Prohibtion Orders to date and from all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	*Demand (million tons)*
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	50.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adveresely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of Section 2(c) of ESECA is not included in the total national demand tsated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in parngraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineer-

ing, University of Pennsylvania, November 7, 1975.)

(c) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*—A. *The existence and effects of any contractual commitment for the construction of the MFBI's.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI's which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C–607–S–0 Schedule A–3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI's be designed and constructed to be capable of using coal as their primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.*—FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the onwer concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.*—This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the additional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II.A., above, to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years. In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

APPENDIX [1]

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU–8330–2–1 OCU–8340–2–2	Standard Oil Co. of California/ Chevron, U.S.A., Inc.	NCD Cymric area, sec. 97.	Undesignated.	Oildale, Calif.

[1] Attached to this Appendix is FEA's MFBI Construction Order Candidate Identification and Selection Methodology.

These findings, determinations and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Standard Oil Company of California/Chevron, U.S.A., Incorporated shall be referred to as the "owner." NCD Cymric Area, Section 97, Undesignated Units shall be referred to as the "MFBI's."

I. *Proposed findings.*

A. *The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C–607–S–0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A–2 of Form FEA C–607–S–0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United Stats, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) [hereafter "BOM Survey"]). Within these recoverable reserves approximately 200 billion tons contain 1 percent or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing companies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99 percent of the total U.S. demand expected in 1985. With time, more potentional mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.* It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
1977	732.3
1978	791.6
1979	851.4
1980	911.7
1981	960.0
1982	994.3
1983	1,017.4
1984	1,028.7
1985	1,029.6

The figures shown above are derived from FEA's Coal Mine Expansion Study (May 1976). This study demonstrates that most coal producers did not have firm or accurate plans for new capacity additions beyond 1980. The 1985 projection, therefore, tends to underestimate actual production potential.

An FEA study Coal Availability Report, April 1977 (hereafter "Availability Report"), indicates current plans for nationwide production of uncommitted coal as follows:

Year:	*Production (million tons)*
1978	124.3
1979	243.1
1980	293.3
1981	350.0
1982	369.9
1983	396.2
1984	475.5
1985	544.9

(2) *National demand exclusive of ESECA prohibition order demand.* The estimated national demand, excluding any increased demand resulting from FEA action under the authority of Section 2(a) of ESECA, is as follows (FEA 1976 National Energy Outlook):

Year:	*Demand (million tons)*
1978	730
1979	764
1980	799
1981	842
1982	887
1983	935
1984	985
1985	1,040

(3) *National ESECA prohibition order demand.* The estimated potential demand for coal resulting from all Notices of Intention to issue prohibition orders to date and from

all outstanding Prohibition Orders issued to date under Section 2(a) of ESECA is no more than the following ("Availability Report"):

Year:	Demand (million tons)
1978	11.0
1979	22.4
1980	32.5
1981	35.8
1982	57.4
1983	59.8
1984	59.8

(c) *State or local laws.* FEA has found no state or local laws or policies limiting the extraction or utilization of coal that would adversely affect these production figures, and none have been brought to FEA's attention.

(d) *Conclusion.* Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

As noted previously, plans for new coal production beyond 1980 are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future. The projection for national coal production potential in 1985 cited in paragraph 2.(a), above, tends to underestimate actual production potential.

FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational.

FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBIs' location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

(e) *Coal transportation.* FEA has considered the availability of national coal transportation facilities. Generally, FEA considers construction lead times pertinent to MFBI's in the early-planning process to be sufficient to allow owners to secure appropriate coal transportation and coal transportation facilities prior to becoming operational.

II. *Factors which ESECA requires FEA to consider.*

A. *The existence and effects of any contractual commitment for the construction of the MFBI's.* FEA has considered the existence and effects of any contractual commitment for the construction of the MFBI's which the owner has reported to FEA in a Schedule of Plan Change Costs attachment to a Form FEA C-607-S-0 Schedule A-3, or otherwise. FEA has considered the additional costs which would be incurred in connection with existing contractual commitments should FEA require that the MFBI's be designed and constructed to be capable of using coal as their primary energy source. Accordingly, FEA has included these costs in its consideration of the capability of the owner to recover any increase in capital investment required as a result of a Construction Order.

B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.* FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.* This analysis is based upon an evaluation of the owner's current financial position as reported in the Dun and Bradstreet Reference Book (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the additional capital investment costs discussed in paragraph B.1., above, and the plan change costs discussed in paragraph II. A., above to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years.

In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

APPENDIX [2]

PROPOSED FINDINGS AND RATIONALE FOR NOTICE OF INTENTION TO ISSUE A CONSTRUCTION ORDER

ESECA and the FEA regulations require FEA to make certain findings and determinations and to consider certain factors before issuing a Construction Order to a Major Fuel Burning Installation (MFBI). FEA's proposed findings, as well as its proposed conclusions with respect to the factors FEA has considered, are set out below with respect to the MFBI's named below. Supporting rationale and conclusions are also set forth.

Docket No.	Owner	Installation	Unit	Location
OCU-8330-1-1 OCU-8330-1-2	Standard Oil Co. of California/ Chevron, U.S.A., Inc.	NCD Bakersfield area, sec. 27, Kern front.	Undesignated.	Bakersfield, Calif.

[2] Attached to this Appendix is FEA's MFBI Construction Order Candidate Identification and Selection Methodology.

These findings, determinations, and considerations, which are now proposed by FEA, are based on the information that has been provided to and developed by FEA prior to the issuance of this Notice of Intention (NOI) to issue a Construction Order.

Standard Oil Company of California/ Chevron, U.S.A., Incorporated shall be referred to as the "owner". NCD Bakersfield Area, Section 27, Kern Front Undesignated Units shall be referred to as the "MFBI's".

I. *Proposed findings.*—A. *The MFBI's are in the early planning process.* Based on an analysis of the information submitted to FEA by the owner on Form FEA C-607-S-0 and information provided by the owner in response to subsequent inquiry to assure the continued applicability and currency of such information, including, as appropriate, an on-site inspection visit, FEA proposes to find that the MFBI's are in the early planning process. This proposed finding is based on the facts, assumptions and reasoning referenced below:

1. Schedule A-2 of Form FEA C-607-S-0 submitted by the owner shows that the preliminary feasibility study was completed.

2. Information supplied by the owner or otherwise acquired by FEA indicates that the early planning process for these MFBI's has not terminated.

3. Schedule A-2 of Form FEA C-607-S-0 submitted by the owner shows that the MFBI's meet the minimum design firing rate requirement.

B. *Within the terms of ESECA, FEA has been unable to determine that an adequate and reliable supply of coal is not expected to be available.* This proposed determination is based upon the facts, interpretations and assumptions stated below:

1. *Coal availability.*—(a) *National coal reserves.* United States coal reserves are more than sufficient to supply national needs for the future. United States Department of the Interior, Bureau of Mines (BOM) data show a demonstrated coal reserve base of over 400 billion tons, over half of which is currently technically and economically recoverable (Demonstrated Coal Reserve Base of the United States, by Sulfur Category, on January 1, 1974, Bureau of Mines (May 1975) (hereafter "BOM Survey")). Within these recoverable reserves approximately 200 billion tons contain 1% or less sulfur by weight. To determine when certain quantities of these reserves are expected to be available, FEA has examined several studies referenced herein, which together provide the best current evidence as to coal availability.

(b) *National coal production and demand.* The comparison, stated below, of estimated national coal production, national coal demand, and the total tonnage of uncommitted planned coal production (derived from responses to a survey of coal producing com-

panies) shows that there should be sufficient production of coal to meet the total national demand through 1980. Beyond 1980, plans for new production are not yet fully developed because few coal producers have firm expansion plans that extend that far into the future; however, the projected total planned national coal production for 1985 already meets over 99 percent of the total U.S. demand expected in 1985. With time, more potential mine developments will become firm plans, thus increasing the planned production.

(1) *National coal production.*—It is conservatively estimated that it will be practicable to produce coal nationally in at least the following quantities:

Year:	*Production potential (million tons)*
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(d) *Conclusion.* Potential coal demand from these MFBI's and from all other MFBI's which are currently under consideration to receive Notices of Intention to issue Construction Orders under authority of Section 2(c) of ESECA is not included in the total national demand stated in paragraph 1.(b)(2), above. Coal demand from such MFBI's is also not calculated in currently projected ESECA generated demand since it is infeasible to anticipate specific quality characteristics for the coal that will be required by these MFBI's so far in advance of their actual construction.

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FEA has considered these facts and the fact that the potential annual demand for coal will increase once these MFBI's and others become operational. FEA expects, however, (based on an analysis of the "BOM Survey", the Coal Mine Expansion Study, the FEA 1976 National Energy Outlook, and the "Availability Report", cited above) that national coal production potential will substantially exceed the total national demand for coal in amounts sufficient in any year to meet the estimated potential additional demand for coal if all MFBI's currently under consideration were to receive Construction Orders under Section 2(c) of ESECA. Within the terms of ESECA, FEA has been unable to determine that coal is not expected to be available for these MFBI's once they become operational. The best available evidence suggests that coal production potential will, in fact, considerably exceed all demand for the years pertinent to this proposed order.

The coal for these MFBI's will probably be bought from producers according to regional supply/demand relationships related to the MFBI's location. FEA observes, however, that the MFBI's could purchase coal in other markets as such production becomes available. (The Feasibility of Considering Expanded Use of Western Coal by Midwestern and Eastern Utilities in the Period 1978 and Beyond, School of Engineering, University of Pennsylvania, November 7, 1975.)

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B. *The capability of the owner to recover any increase in projected capital investment required as a result of a construction order.* FEA has considered, in the manner described below, the capability of the owner to raise and to recover the increased capital investment expected to result from the issuance of a Construction Order.

1. *Increased capital investment required as a result of a construction order.*— FEA has evaluated the additional capital investment costs required in order to design and construct the MFBI's to be capable of burning coal as their primary energy source. This calculation is based on existing FEA information and analysis, as well as information filed with FEA by the owner concerning the cost of equipment and facilities that would have to be acquired. Approximate costs to comply with applicable environmental protection requirements have also been considered, including the cost of compliance with the air pollution control requirements of the Clean Air Act.

2. *Capability of the owner to raise the increased capital investment.*—This analysis is based upon an evaluation of the owner's current finanical position as reported in the Dun and Bradstreet Reference Book, (March 1977). Where necessary, FEA has performed an independent analysis of the owner's financial capability. In those cases in which an independent analysis of the owner's ability to recover the additional capital investment was performed, FEA related the additional capital investment costs discussed in paragraph B.1, above, and the plan change costs discussed in paragraph II. A., above, to the owner's net property and plant assets, the owner's reported recent construction expenditures and the owner's equity.

In considering the owner's ability to recover the increased capital investment costs, FEA has compared these increased costs, the demonstrated ability of the owner to raise the additional capital, any loss of revenue resulting from a delay, if any, in the commencement of operations of the MFBI's resulting from a Construction Order, the owner's historical profit profile, and a presumed useful life of the MFBI's after construction of 40 years. In light of such considerations, FEA presumes that the owner's capability to recover any increase in capital is confirmed since the owner can both raise the necessary additional capital for construction with coal burning capability and has historically shown a profit profile.

[FR Doc.77–13702 Filed 5–16–77;8:45 am]